Laboratory Analysis Report Key
Wolverine World Wide Former Tannery Site

Included with your results letter is the laboratory analysis report for the samples collected. Below is a brief description of what is included in that analysis report and what it means:

Header: Each sample collected will be designated in the analysis report by a header which lists information about the sample. Below is a description of the relevant information provided in the header:

Sample Description: Sample ID, determined using naming convention set forth by the sample collecting agency.

Submittal Date/Time: The date and time that the sample was submitted to the laboratory.

Collection Date/Time: The date and time that the sample was collected in the field by the collecting agency.

Matrix: The type of media being sampled (i.e. water, soil, air, etc.).

Other: The rest of the information in the header is internal naming or numbering used by the lab or the collecting agency to identify the project.

Results: The results are displayed below the header for each sample. Below is a description of what is included in the results section:

CAT No.: An internal lab number describing the sample analysis type.

Analysis Name: The name of the individual chemical being tested for by the lab.

CAS Number: A unique numerical identifier assigned by the Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature, basically another way to name the chemical.

Result: The result of the analysis for each individual chemical with the units displayed at the top of the column.

ng/L = nanograms per liter, meaning how many nanograms of the chemical were detected per liter of matrix (water), this is also equivalent to parts per trillion (ppt), meaning how many parts of the chemical were detected per trillion parts of the matrix (water).

N.D. = Non-detect, meaning that the chemical was not detected above the method detection limit (see below for explanation of method detection limit). A non-detect result does not imply that the chemical does not exist in the sample, but that it does not exist at a concentration above the method detection limit.

Data Qualifiers: A letter may appear next to the result number which is referred to as a data qualifier. This is applied if a unique situation exists for that sample analysis that requires that particular result to be qualified. Data qualifier codes are provided at the end of the lab report. There are a number of reasons that a particular sample analysis needs to be qualified. The most common data qualifier is:

J (or G, I, X) which means that the result for that particular chemical is estimated. This occurs when the chemical is detected above the MDL (see below, the lowest concentration that the lab has confidence in detecting) but below the Reporting Limit (RL) – also referred to as Limit of Quantitation (LOQ) or Practical Quantitation Limit (PQL). The RL is the lowest concentration that a given chemical can be reliably reported based on the analysis method, and is typically the concentration of the lowest point on the calibration curve. Basically a J data qualifier means that the result is estimated because the concentration is above the level which the lab has confidence in detecting but below the lowest point used to set up the instrumentation for analysis for the particular method.

Other data qualifiers may be noted, if you have questions about other qualifiers please contact the EPA or other authority listed in your results letter.

Method Detection Limit (MDL): This represents the lowest concentration for each chemical that the laboratory is able to detect using the selected analysis method. This is also sometimes referred to as the detection limit (DL). Each lab may have a different MDL for any given analysis method based on the confidence they have in their ability to detect a given chemical.

Dilution Factor: If the concentration of a given chemical is too high, it may have to be diluted to be accurately reported by the laboratory equipment. For example, a dilution factor of 1 means the sample was not diluted at all, whereas a dilution factor of 10 means the sample was diluted 10 times, which is then taken into account when determining the concentration reported. The result displayed has already taken into account this dilution factor, it is merely provided to denote if a dilution had to be performed for a given chemical.

This is not an exhaustive list of everything contained within the lab analysis report, it is only intended to provide an explanation of the most common information as it pertains to your sample results. If you have any specific questions please contact the EPA or other authority listed in your results letter.